

IN THE CLAIMS:

Please amend the claims as shown below, in which deleted terms are shown with strikethrough and added terms are shown with underscoring.

1. (Currently amended) A method for producing an article coated with a titanium compound film characterized in that a titanium target containing 1 to less than or equal to 45 at% of a metal with two or more times higher sputtering yield than that of titanium in an argon atmosphere is used in forming the titanium compound film on a substrate by a reactive sputtering process.

2. (Currently amended) ~~[[A]]~~ The method for producing an article coated with a titanium compound film ~~characterized in that a~~ according to claim 1, wherein the titanium target ~~containing~~ contains 1 to 20 at% of ~~[[a]]~~ the metal with two or more times higher sputtering yield than that of titanium in an argon atmosphere ~~is used in forming the titanium compound film on a substrate by a reactive sputtering process.~~

3. (Currently amended) The method for producing an article coated with a titanium compound film according to ~~any one of claims 1 and 2~~ claim 1, characterized in that the titanium target containing the metal contains a third metal other than titanium and the metal.

4. (Currently amended) The method for producing an article coated with a titanium compound film according to claim ~~[[4]]~~ 3, characterized in that the third metal ~~other than the titanium and the metal is~~ comprises at least one of iron and molybdenum.

5. (Currently amended) The method for producing an article coated with a titanium compound film according to claim 3 [[or 4]], characterized in that the titanium target ~~containing the metal~~ contains 0.01 to 10 at% of the third metal.

6. (Currently amended) The method for producing an article coated with a titanium compound film according to ~~any one of claims 1 to 5~~ claim 1, ~~characterized in that heating or further comprising a step of conducting heat treatment is carried out during and/or after film formation in a method for producing of~~ the titanium compound film.

7. (Currently amended) The method for producing an article coated with a titanium compound film according to ~~any one of claims 1 to 6~~ claim 1, characterized in that the titanium compound is a titanium oxide.

8. (Currently amended) The method for producing an article coated with a titanium compound film according to ~~any one of claims 1 to 6~~ claim 1, characterized in that the titanium compound is a titanium nitride.

9. (Currently amended) The method for producing an article coated with a titanium compound film according to ~~any one of claims 1 to 8~~ claim 1, characterized in that a substrate coated with the film is a plate-shaped glass.

10. (Currently amended) The method for producing an article coated with a titanium compound film according to ~~any one of claims 1 to 9~~ claim 1, characterized in that the metal is tin.

11. (Currently amended) The method for producing an article coated with a titanium compound film according to ~~any one of claims 1 to 9~~ claim 1, characterized in that the metal is zinc.

12. (Currently amended) An article coated with a titanium compound film having a photocatalytic function or an optical function, produced by the method according to ~~any one of claims 1 to 11~~ claim 1.

13. (Original) The article coated with a titanium compound film having a photocatalytic function according to claim 12, characterized in that a crystalline zirconium oxide layer, a zinc oxide layer, a magnesium oxide layer, a tin oxide layer, or an iron oxide layer is provided between the substrate and the titanium compound film.

14. (Currently amended) An article coated with a titanium compound film containing a metal, wherein the metal has two or more times higher sputtering yield in an argon atmosphere than that of titanium and the metal content ratio of the metal to titanium is 1 to less than or equal to 45 at%.

15. (Currently amended)      [[An]] The article coated with a titanium compound film ~~containing a metal according to claim 14~~, wherein the metal ~~has two or more times higher sputtering yield in an argon atmosphere than that of titanium and the metal~~ content ratio of the metal to titanium is 1 to 20 at%.

16. (Currently amended)      The article coated with a titanium compound film according to ~~any one of claims 14 and 15~~ claim 14, wherein the metal is tin.

17. (Currently amended)      The article coated with a titanium compound film according to ~~any one of claims 14 and 15~~ claim 14, wherein the metal is zinc.

18. (Currently amended)      The article coated with a titanium compound film according to ~~any one of claims 14 to 17~~ claim 14, characterized in that the titanium compound is titanium oxide.

19. (Currently amended)      The article coated with a titanium compound film according to ~~any one of claims 14 to 18~~ claim 14, characterized in that a substrate of the article is plate-shaped glass.

20. (Currently amended)      A titanium target containing a metal, which is used for forming a titanium compound film on a substrate by a reactive sputtering process, characterized in that the metal has two or more times higher sputtering yield in an argon atmosphere than titanium and the metal content ratio of the metal to titanium is 1 to less than or equal to 45 at%.

21. (Currently amended)      ~~[[A]]~~ The titanium target containing a metal, ~~which is used for forming a titanium compound film on a substrate by a reactive sputtering process, characterized in that~~ according to claim 20, wherein the metal ~~has two or more times higher sputtering yield in an argon atmosphere than titanium and the metal~~ content ratio of the metal to titanium is 1 to 20 at%.

22. (Currently amended)      The titanium target containing a metal according to ~~any one of claims 20 and 21~~ claim 20, characterized in that a third metal other than the titanium and the metal is contained in the titanium target containing the metal.

23. (Original) The titanium target containing a metal according to claim 22, characterized in that the content of the third metal is 0.01 to 10 at%.

24. (Currently amended)      The titanium target containing a metal according to claim 22 ~~[[or 23]]~~, characterized in that the third metal is at least one of iron and molybdenum.

25. (Currently amended)      The titanium target containing a metal according to ~~any one of claims 20 to 24~~ claim 20, wherein the metal is tin.

26. (Currently amended)      The titanium target containing a metal according to ~~any one of claims 20 to 24~~ claim 20, wherein the metal is zinc.